SOUTH DAKOTA
ADVANCED READING ENHANCEMENT APPROACH
(AREA)

FINAL PROGRAM EVALUATION REPORT

SUBMITTED BY
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EXECUTIVE SUMMARY

> ***"The educational careers of 25 to 40 percent of American children are imperiled because they do not read well enough." (Snow, 1998)***

The South Dakota Advanced Reading Enhancement Project (AREA) was a three-year project designed to provide all 1st, 2nd, and 3rd grade teachers with intensive, yearlong training and mentoring in comprehensive literacy instruction including such elements as: phonemic awareness, phonics, fluency, vocabulary, comprehension, and writing strategies. Mid-continent Research for Education and Learning (McREL) conducted an external evaluation of the AREA project. Findings from the evaluation are summarized in this end-of-project report. The evaluation collected data from multiple sources, including: documentation of service delivery; pre-post teacher surveys; administrator surveys; pre-post classroom observations; student assessments; and site visits. The data from these sources show that AREA has had several beneficial effects.

There has been significant growth in teacher knowledge and skills in teaching reading and writing and teachers are more likely to feel that they are capable of meeting the unique needs of all their students. Classroom practices of teachers who participated in AREA changed dramatically over the course of a teacher's yearlong training. Teachers across South Dakota are incorporating instructional strategies and techniques which provide students with a comprehensive literacy experience. In addition, there are some data to suggest that teachers who are no longer participating in the AREA project are continuing to employ the knowledge, skills, and classroom techniques they learned thru AREA in the school year following their training. Multiple sources of data suggest that student performance in reading and, to a lesser extent, writing has improved as a result of the AREA intervention. In sum, AREA was a highly unique project in that it consisted of intensive, yearlong professional development that was delivered on a statewide basis. Trainers were on-site in teachers' classrooms and worked directly with them allowing teachers to try out and refine the new techniques and strategies they were learning.

The scope, intensity, and method of delivery utilized by AREA has rarely been undertaken on such a large-scale basis. Findings suggest that this type of ongoing, yearlong professional development including a combination of ongoing practice and mentoring of teachers, along with monthly training sessions, was highly effective.

INTRODUCTION

Research supports the principle that, to ensure student success in reading and, indeed, success in school as a whole, intervention needs to occur early on -- at the primary grade levels. Whether or not a strong foundation of reading skills has been established, it often sets the stage, and indeed strongly predicts whether or not children will flourish in their future educational and career endeavors. Correlations between reading and comprehension skills in students from Grade 1 to Grade 9 are very high (Compton, 2000). This suggests that, if students don't progress in beginning reading skills in the early grades, it is *not* typical that they will catch up over time. Rather, it is likely that those children who are poor readers in the early grades will continue to be relatively weak in reading into the upper elementary grades and beyond. The broad and serious consequences of such early reading failure on children's cognitive and affective development is apparent in light of research which suggests that, by 3rd grade, one can predict with a fair degree of reliability which students will ultimately drop out and which will complete their schooling (Slavin, Karweit, & Madden, 1989).

PROJECT BACKGROUND

AREA was a three-year initiative[1] designed to provide all 1st, 2nd, and 3rd grade teachers in South Dakota with intensive, yearlong training in literacy instruction. Teachers from about one third of the state's schools participated in 2000 – 2001. First, second, and third-grade teachers participated in 2001- 2002 from another third of the schools and the same in 2002-2003. Third-grade teachers from the first year's school were picked up in the second or third year of training. The AREA framework consisted of the following elements:

- ***45 hours of direct instruction to teachers****:* Teachers attended 45 hours of training during an entire 9-month school year. Teachers progressed through the training with the same group of colleagues. Self-study and assigned direct practice were an integral part of trainings.

- ***18-22 hours of administrator training****:* School administrators from participating sites participated in 18 to 22 hours of administrator training. Emphasis was placed on their role as instructional leaders in helping to implement high-quality literacy instruction in their buildings.

- ***Student assessment****:* Teachers were trained in the use of high-quality assessments and how to utilize assessment data on an ongoing basis to plan instruction. Students were assessed at regular time intervals throughout the year.

- ***Ongoing mentoring and coaching****:* Teachers worked directly with a primary trainer with whom they communicated regularly over the year. Trainers visited each teacher's classroom from 7 to 11 times during the school year. Visits provided opportunities for coaching, ongoing feedback, modeling, and demonstration of instructional techniques.

[1] AREA began in the Fall of 2000 and was completed in the Spring of 2003.

- ***Provision of resources and materials:*** Each teacher who participated in the training received extensive resources and materials.

The ultimate goal of this statewide initiative was to ensure the reading success of all South Dakota students; that students will be reading at or above grade level by the third grade. Given how critical the development of early literacy skills are to the future of our children, it is of vital importance that an initiative as far reaching as AREA be evaluated in terms of impact on schools, teachers, and children.

The South Dakota Department of Educational and Cultural Affairs (DECA) contracted with Mid-continent Research for Education and Learning (McREL)[2] to conduct a formal external evaluation of the South Dakota Advanced Reading Enhancement Approach (AREA). The purpose of this evaluation was to identify the impact(s) of this project on educators, schools, classrooms, and students.[3] The evaluation was designed to address the following questions:

1. Has student learning improved as a result of the AREA project?
2. Has teacher capacity to deliver high-quality literacy instruction increased? Did teachers obtain the targeted knowledge and skills necessary to deliver high-quality literacy instruction?
3. How have classrooms changed as a result of AREA? Do students have increased access to high-quality learning opportunities and literacy materials appropriate to their needs?
4. What do participants think about the AREA project? What are their perceptions regarding the usefulness and relevance of AREA?
5. How was the project implemented? Did AREA reach its target audience? Was the project delivered as intended?

In order to address these evaluation questions, the evaluation design utilized used both quantitative and qualitative research methods to collect data on multiple levels (e.g., students, teachers, administrators, classrooms, schools, as well as on service delivery and trainers) over time. Data collection mechanisms put into place included:

1. Documentation and ongoing monitoring of program implementation (e.g., what was delivered to whom, when, and how);
2. Pre- and post-teacher surveys;
3. Administrator surveys;
4. Pre- and post-classroom observations of teacher practices;
5. Collection of student assessment data; and
6. Site visits.

This is the final report on the AREA project.[4] Major findings related to each of the evaluation questions are presented in the text of this report.

[2] McREL is an external, independent, and nationally recognized leader in educational research and evaluation.
[3] A program logic model is included in Appendix B and visually shows the intended short-term, intermediate, and long-term outcomes for AREA.
[4] AREA finished as of Spring, 2003.

EVALUATION QUESTIONS AND FINDINGS

1. Has student learning improved as a result of the AREA project?

Three types of analyses were conducted to ascertain the impact of AREA on student learning. Comparisons were made on second grade SAT9 state assessment results between students whose teachers had participated in AREA and those students whose teachers had not yet participated.[5] Second, fall assessment scores of third graders who had an AREA-trained teacher in the prior year were compared to students of teachers who had not yet been trained by AREA. Third, teacher level of implementation of the comprehensive literacy practices which make up the AREA approach was systematically related to student performance data.

Second Grade SAT9 State Assessment Results

Figure 1 and Figure 2 show the average SAT9 scale scores by teacher year of participation. These scale scores are adjusted so that they show the differences between groups after IEP and LEP status have been taken into account. Differences in the scale scores between the groups therefore are not a result of demographic differences between the populations.

Figure 1: 2001-2002 Second Grade SAT9 Assessment Results: By Year of AREA Participation

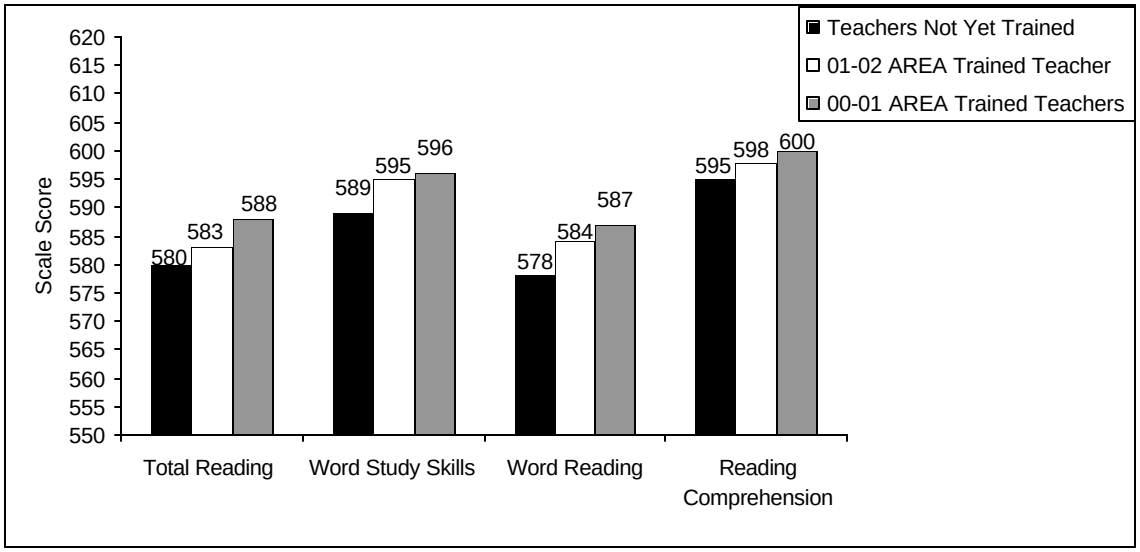


Figure 1 shows that, across all SAT9 subtests related to reading, students whose teachers were trained by AREA perform better than those whose teachers were not. Moreover, the 2000-2001 students who had AREA-trained teachers for both the first and second grade performed better than 2001-2002 students whose second-grade teacher only had participated in AREA. Although the size of the differences are not large enough to achieve statistical

[5] This was possible because delivery of the AREA project was spread over a 3-year time period and some schools/teachers did not participate until latter years.

significance in most areas, the consistency of the patterns observed are encouraging, especially given the short timeframe and the lack of sensitivity of the SAT9 as an assessment measure.

Figure 2: 2001-2002 Second Grade SAT9 Assessment Results By Year of AREA Participation

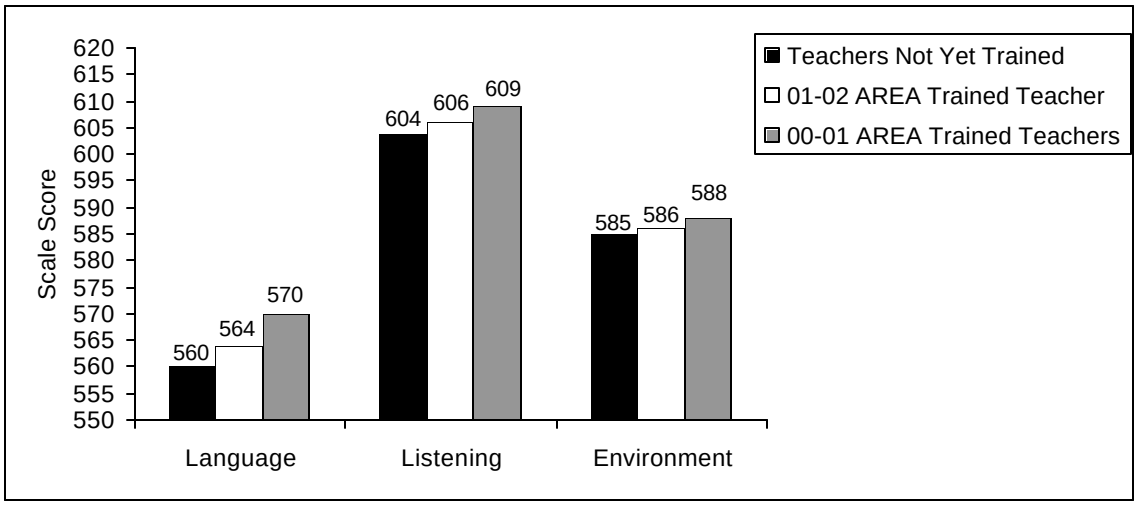


Figure 2 shows that the students of AREA-trained teachers performed better on other SAT9 subtests as compared to students whose teachers were not trained. In the area of Language, the difference was significant at the .10 level ($F=2.43$, $p<.10$). Again, students whose 1st and 2nd grade teachers had been AREA-trained did even better than those whose 2nd grade teachers were currently being trained.

In sum, comparisons of second grade SAT9 results show that students who have had AREA trained teachers performed consistently better across multiple subtests of the SAT9 as compared to students whose teachers have not yet been trained by AREA. Moreover, students who have had AREA-trained teachers for two years performed even better than students whose teachers were in their first year of AREA participation. Thus, the longer the students were exposed to the AREA framework, the greater the difference in student performance.

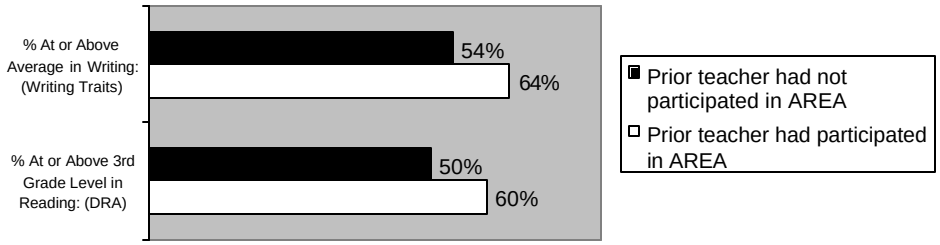
Comparison of fall student assessment scores

All students of teachers participating in AREA are administered a battery of assessments at the beginning and end of the school year.[6] A comparison of incoming student assessment scores was made in the Fall of 2001 between 3rd grade students who had come from a teacher who had been trained by AREA (N=1,301) versus a matched random sample of 3rd grade students whose prior teacher had not yet participated in the AREA training (N=1,301). Third graders were administered the Developmental Reading Assessment (DRA) as a measure of reading attainment and 6+1 Writing Traits as an assessment of writing. Figure 3 shows that those students whose prior year teacher had participated in AREA were significantly more likely to read and write at

[6] Pre- and post-assessment information were collected by the AREA evaluation, however, teachers often did assessments on a quarterly basis for their own purposes. Assessments used varied by grade level, however, each grade level had a reading and writing assessment – which are subsequently described.

or above grade level as compared to students whose prior year teacher had not participated in AREA (Chi Square=26.05, $p<.01$). By the beginning of the third grade, an average of 10% more students were reading and writing at or above grade level.[7]

Figure 3: Comparison of Third Grade Student Assessment Scores (Fall 2001)



One other assessment, the Gentry Spelling Inventory, was taken by 3rd grade students. Those students whose 2nd grade teacher had been trained by AREA were compared with students whose prior teacher had not yet been trained by AREA. These two groups did not differ in terms of the proportion of students in the Phonetic to Correct Stages (97% of 2nd year students and 96% of 1st year students, respectively). By the fall of third grade, students are expected to be at least at the phonetic spelling stage.

In sum, the results of the comparison on incoming fall assessments between third grade students whose prior teacher had been trained by AREA versus those whose prior teacher had not yet been trained by AREA suggest that AREA is having a positive impact on student achievement. On assessments of reading and writing, students whose prior year teacher had participated in AREA tended to perform higher than students whose prior teacher had not had exposure to AREA.

Relationship between student performance and classroom practices

As an additional confirmation of the role of AREA, analyses were performed to see if there was a relationship between the extent to which teachers implemented comprehensive literacy practices in the classroom, as measured by classroom observations, and student performance on Spring 2003 assessments administered to students of AREA-trained teachers.

[7] The 6+1 writing rubric is a widely used writing assessment that was administered pre/post to all 3rd grade students of AREA participants. The reading assessment used was the Developmental Reading Assessment (DRA) which is a criterion reference reading assessment that uses actual leveled reading passages.

Student performance on reading

The Developmental Reading Assessment (DRA) used by AREA was administered to all 1st to 3rd grade students. The DRA gauges student development through actual reading of passages tied to guided-reading levels (ranging from PreA up and through 44). DRA scores are tied to established performance brackets by grade levels. Below are three figures (Figures 4, 5, and 6) which show the relationship between student performance on the DRA in the Spring of 2003 and teacher implementation of comprehensive literacy practices.[8]

Figure 4: 1st Grade Reading Performance by Level of Comprehensive Literacy Implementation: Percentage of First Graders At or Above Grade Level

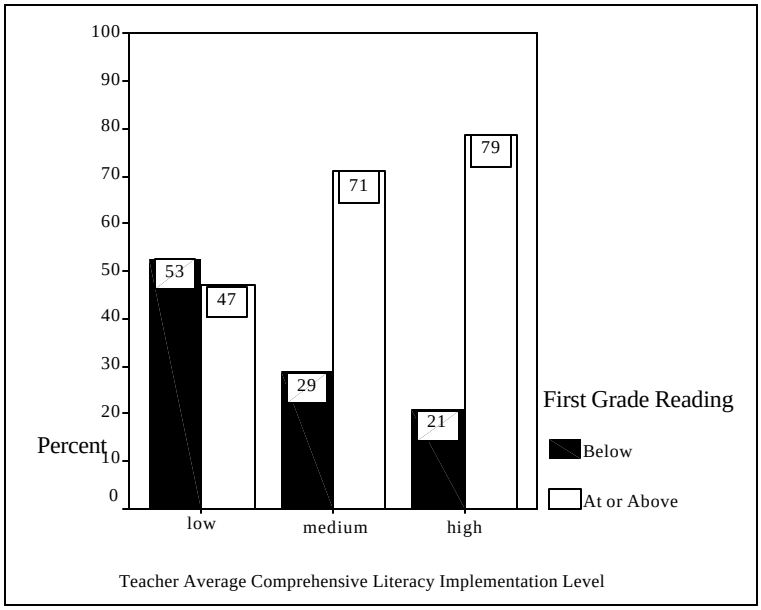
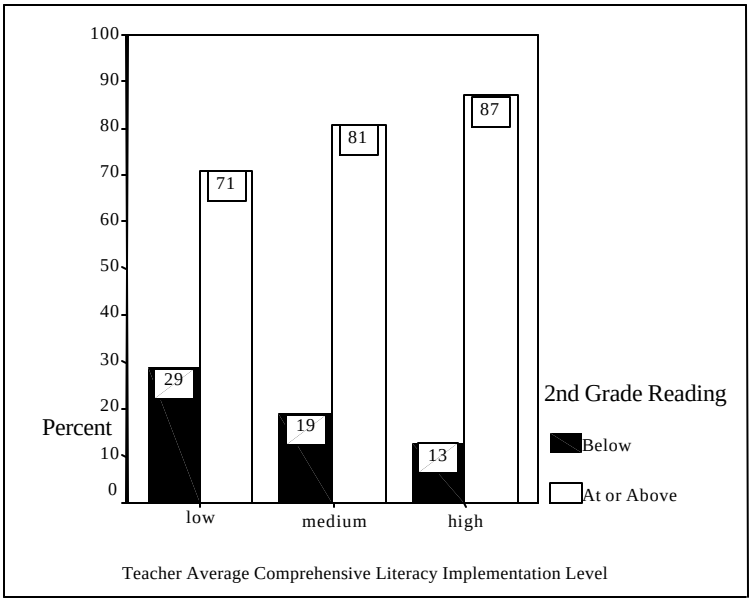


Figure 4 shows that, as teachers implemented more elements of comprehensive literacy into their classrooms, the performance of first graders tended to go up, as measured by the DRA ($?^2=74.61, p<.05$). While over half (53%) of the students of teachers who were low implementers of comprehensive literacy were below grade level on the DRA, a much smaller proportion (21%) of students were below grade level in classrooms where comprehensive literacy was implemented to a high degree.

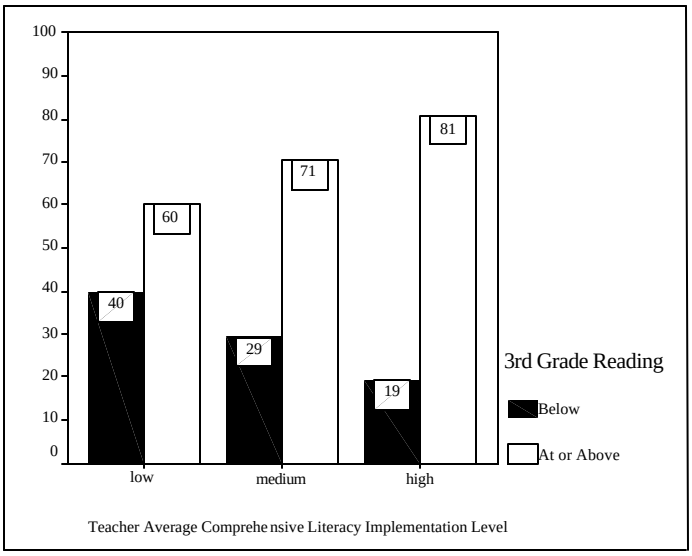
[8]A teacher was considered to be a "low implementer" if he/she had present in their classrooms less than one-third of all the possible components of comprehensive literacy (as measured by a classroom observation instrument), a "high implementer" had more than two-thirds of all possible components. The average implementation score across 2003 Fall and Spring classroom observations was used in this analyses. Using this average implementation index, 19% of 2003 teachers were in the low implementation category (N=163), 71% were medium (N=625), and 10% were high (N=90).

Figure 5: 2nd Grade Reading Performance by Level of Comprehensive Literacy Implementation: Percentage of Second Graders At or Above Grade Level



DRA results on second graders also showed that, as implementation of comprehensive literacy increased, so did second graders' performance on the DRA ($?^2$=14.02, p<.05). Specifically, students of teachers who implement comprehensive literacy practices to a high degree are significantly more likely to read at or above grade level as compared to students of teachers who do not implement comprehensive literacy practices.

Figure 6: 3rd Grade Reading Performance by Level of Comprehensive Literacy Implementation: Percentage of Third Graders At or Above Grade Level



Consistent with findings at the first and second grade levels, Figure 6 shows that, as implementation of comprehensive literacy increased, so did third graders' performance on the DRA ($?^2$=36.21, p<.05). While 81% of the students of teachers who implement comprehensive literacy to a high degree are reading at or above grade level, only 60% of students of teachers who do not implement comprehensive literacy are doing so.

Student performance on writing

Ongoing student assessment was an important component of the AREA project. Students of AREA-trained teachers were given a battery of assessments at the beginning and end of the school year, as well as periodically throughout the year. For writing, a writing vocabulary assessment was used for first and second graders. The Writing Vocabulary assessment gives students 10 minutes to write as many words correctly as possible. Results showed that students of teachers who implemented comprehensive literacy to a low degree in their classroom also tended to have lower scores on Writing Vocabulary as compared to medium levels of implementation and high levels of implementation[9] (t(4028)=5.03, p<.05 and t(1033)=4.61, p<.05, respectively). On average, students wrote seven less words if they were in a class with a teacher implementing a low level of comprehensive literacy compared to a teacher who implemented comprehensive literacy at a medium or high level.

The 6 +1 Writing Traits Rubric is a widely used assessment which was administered to all 3rd grade students. There were no significant differences between groups on 6 +1 Writing Traits. Writers Workshop was one element of comprehensive literacy not as likely to be implemented as other elements. This is a writing technique primarily used with third graders and up. The classroom observation rubric which was used to classify teacher level of comprehensive literacy implementation did not include a separate rating on the extent to which Writers Workshop was implemented.[10] Thus, teacher writing practices at the upper grade levels may not have changed as much and this may explain the lack of a discernible difference on this assessment. Or it just may be that by the end of the first year of teacher involvement, it is too soon to expect to see significant changes in student writing.

In sum, there is evidence that implementing comprehensive literacy practices is associated with higher levels of student performance. This pattern shows itself consistently on all reading assessments (DRA) in that student performance steadily increases as teachers implement more elements of comprehensive literacy. Results from writing assessments are more mixed, with differences in the early grades and no significant differences on the Writing Traits assessment between third-grade students of teachers who implement comprehensive literacy to a high degree as compared to students of those who implement to a low degree.

[9] These scores are post-test scores at the end of the year. Pre-test scores have been controlled for and taken into account in the analyses, so differences cannot be attributed to the fact that some students started out at a higher level than others.

[10] Third-grade teachers were added as an additional target audience for AREA as of the second year. At that time, program staff indicated that they did not want to add an additional observation checklist for Writers Workshop which was used primarily with teachers of older students (e.g., third grade and above).

2) *Has teacher capacity to deliver high-quality literacy instruction increased*?

A core feature of the AREA program was that it focused on developing teacher capacity. Such a focus is substantiated by the research literature. In the report, *What matters most: Teaching for America's future*, the National Commission on Teaching and America's Future (1996) states that:

> Teacher expertise is the single most important determinant of student achievement. Recent studies consistently show that each dollar spent on recruiting high-quality teachers, and deepening their knowledge and skills, nets greater gains in student learning than any other use of an education dollar. (Pg. 6)

Education reformers over the past decade have reminded us that, to improve student achievement, we must improve teacher performance and quality (Beeres, 2000). Thus, key evaluation questions become:

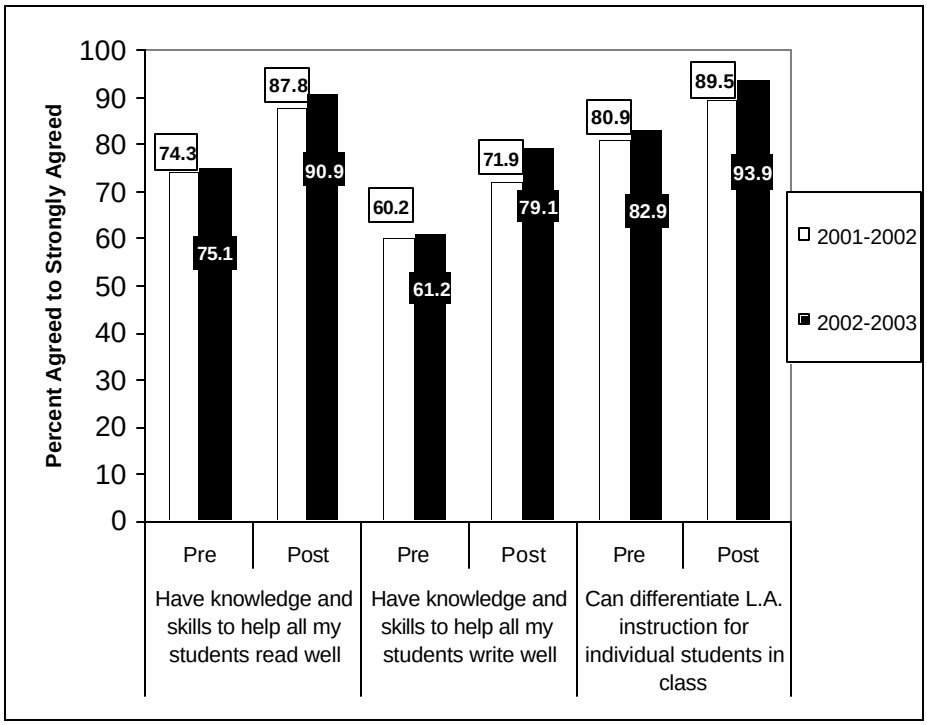
- Did teachers obtain the targeted knowledge and skills necessary to deliver high-quality literacy instruction?
- How have teacher practices changed?

Teacher knowledge and skills

Teachers and administrators were administered surveys at the beginning of their AREA participation and again at the end of their participation during the 2001-2002 and 2002-2003 school years.[11] Figure 7 shows how teachers perceived their preparation to help students read and write and to differentiate instruction for students at the very beginning of their AREA involvement (PRE) and after they had completed an entire year of training (POST).

[11] McREL was not formally brought on as the external evaluator for AREA until the Spring of 2001, nine months after the start of the AREA project. Thus, the longitudinal pre/post evaluation mechanisms were not put into place until Year Two.

Figure 7: Teacher Knowledge Skills and Beliefs: Pre/Post by School Year

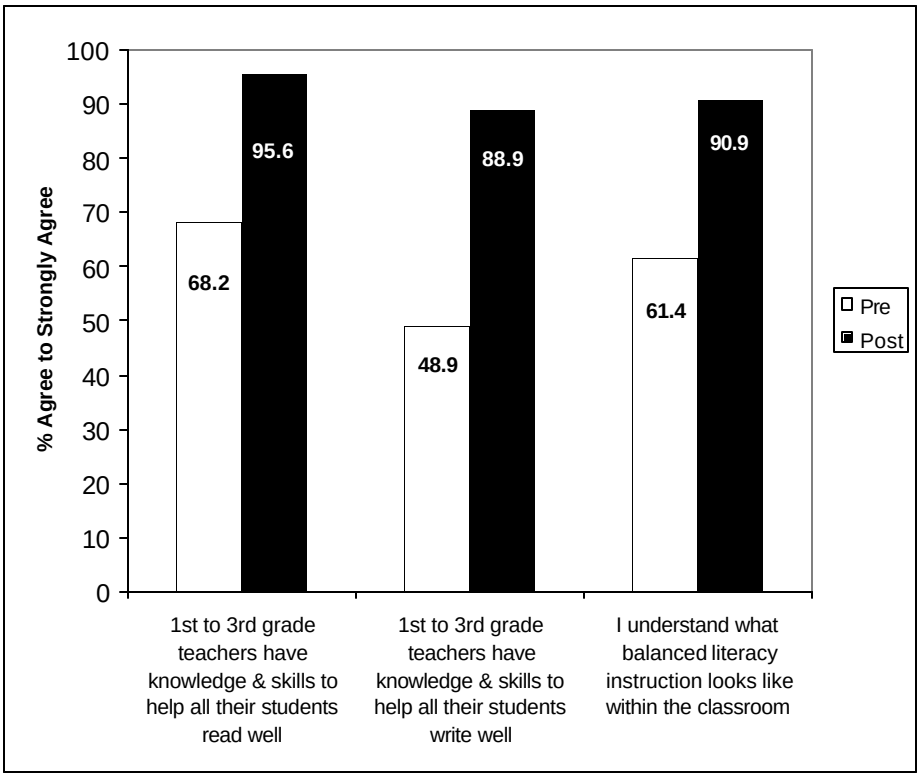


Across all three survey items presented above, a significant change is indicated in the proportion of teachers who agreed or strongly agreed that they had the knowledge and skills to help students read and write well and could differentiate language arts instruction for individual students. A large number of teachers felt better able to do this once they had completed the AREA training compared with prior to their participation in AREA.

> *"I'm really excited about it. For the lower kids…they used to just slide through, but now they can work at their level. The top kids can have enrichment as well, rather than hitting the ceiling. These techniques really make me clue in on WHY a child can't do something—so now I feel that everyone is <u>really</u> learning.* – SD teacher

Figure 8 shows that at the end of a full year of participation in AREA, school administrators also felt like their teachers were markedly more prepared to teach children how to read and write well -- at a level tailored to the individual student.

Figure 8: Administrator Perceptions of Teachers' Knowledge and Skills: 2002-2003 Pre/Post



Teachers were asked to rate the extent to which they were using a variety of comprehensive literacy techniques in the classroom[12] on pre- and post-surveys. They rated 10 items on a scale of 1 to 5 (1= they do not use that strategy; 5= they were fully implementing that strategy). Table 1 shows the proportion of teachers who rated themselves as either refining their use (4) or fully implementing (5) the various comprehensive literacy elements, both before and after the AREA training.

[12] The content taught by AREA was based upon the research literature which indicates that a solid literacy framework in the early primary grades should include the following elements: phonemic awareness, phonics, fluency, vocabulary, comprehension, and writing strategies. The vehicles used to provide instruction in these strategies are guided reading, working with words, independent reading, interactive writing, and writers' workshop. The AREA framework also highlights flexible grouping of students, assessment, monitoring of student progress to inform instruction, and the provision of interventions for struggling readers.

Table 1: Teachers Indicating Currently *Refining Use* to *Fully Implementing* Comprehensive Literacy Elements: Pre/Post Surveys by School Year

Percent refining use or fully implementing the following:	**Program Year**			
	2001-2002 Administration		**2002-2003 Administration**	
	Pre	**Post**	**Pre**	**Post**
Guided Reading	*39%*	*60%*	*37%*	*80%*
Word Wall	*53%*	*51%*	*50%*	*77%*
Use of Leveled Books	*44%*	*51%*	*48%*	*83%*
Working with Words	*45%*	*48%*	*48%*	*80%*
Interactive Writing	*28%*	*40%*	*34%*	*59%*
Writers Workshop	*48%*	*33%*	*22%*	*42%*

Teachers self-reported implementation of the various elements increased significantly from pre- to post-surveys across all areas except for Word Wall and Writers Workshop for 2001-2002 teachers. Notably, the growth appeared to be more pronounced in teachers participating in AREA during the third and final year (2002-2003) as compared to the 2001-2002 participating teachers. Across both years, Writers Workshop[13] as compared to the other elements of comprehensive literacy was less successfully implemented.

Administrators also demonstrated an increase in their knowledge of early literacy practices, as shown in Table 2 below.

Table 2: Administrator Familiarity with Comprehensive Literacy Elements: 2002-2003 Pre/Post Administrator Survey

Percent highly familiar to familiar with the following:	**2002-2003 Administration**	
	Pre	**Post**
Guided Reading	*55%*	*86%*
Word Wall	*64%*	*89%*
Use of Leveled Books	*58%*	*91%*
Working with Words	*42%*	*70%*
Interactive Writing	*31%*	*64%*
Writers Workshop	*27%*	*68%*

[13] Writers Workshop refers to a block of school time devoted to student planning, drafting, and editing compositions for publication, often involving peer collaboration. Notably, this technique is most often used with students who are not at the early stages of writing.

Teachers have also shown a general increase in their use of classroom assessments (except for the Writing Traits and Rubrics in the 2001-2002 year) to inform their classroom instruction, as indicated in Table 3 below.

Table 3: Teachers Using Classroom Assessments by Year: Pre/Post

Percent refining use or fully implementing the following:	**Program Year**			
	2001-2002		**2002-2003**	
	Administration		**Administration**	
	Pre	**Post**	**Pre**	**Post**
Running Records	*38%*	*44%*	*33%*	*63%*
Writing Traits & Rubrics	*44%*	*34%*	*29%*	*52%*
Development Reading Assessment (DRA)	*46%*	*85%*	*41%*	*78%*

"Before AREA, I used grades on worksheets and basic comprehension skills to assess my students…it was all just kind of in my head. Now, with the DRA, I know right where my students are at. It's really rewarding to see the lower kids come up to level." -- SD teacher

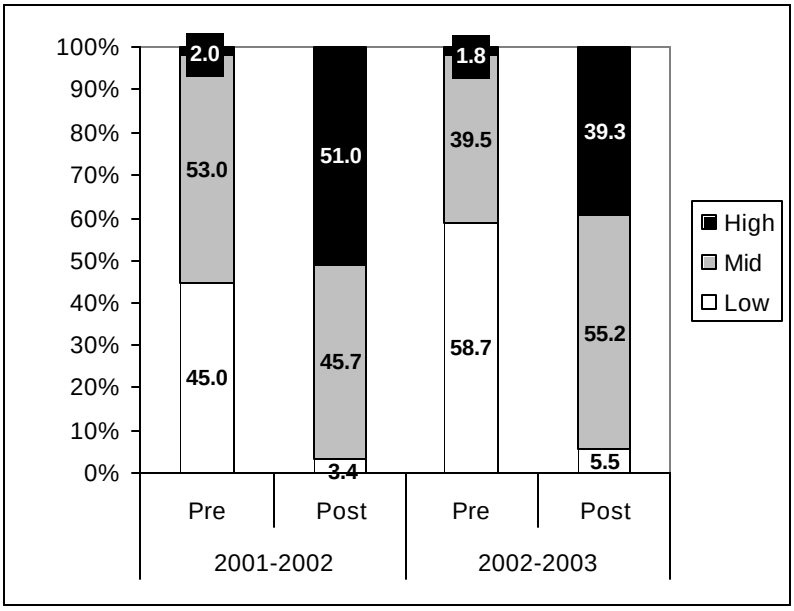
"Before I was sort of guessing [student level]. *Now, I'm more skilled at using student writing as an assessment and the assessments drive my instruction."* -- SD teacher

Changes in classroom practices

The graphs and tables in the above section present results from teacher self-reports on their knowledge and skills as measured by pre/post surveys. As a means of obtaining additional information on actual classroom practices, formal observations of teacher practices were made at the beginning of a teacher's participation in AREA and at the end of their participation. A consistent classroom observation checklist was used for both pre/post observations and collected information on the extent to which teachers were integrating comprehensive literacy practices into their classrooms.[14] This section reports on the results of these classroom observations pre/post by year of AREA participation.

[14] If a given teacher had less than one-third of the elements of the strategy, they were designated as a "low implementer," if they had more than two-thirds of all possible elements they were a "high implementer."

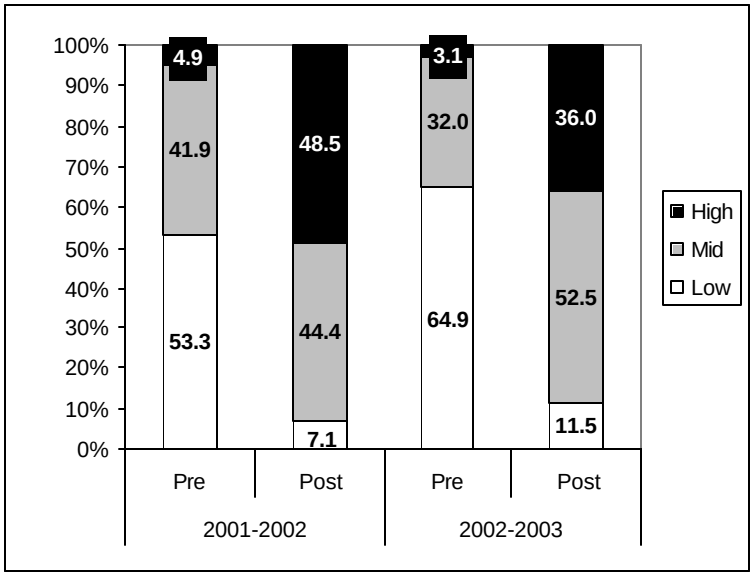
Figure 9: Implementation of Overall Comprehensive Literacy in the Classroom: Pre/Post by School Year



Significant changes in teacher classroom practices were observed between the pre-test and post-test observations. This was a consistent pattern among teachers who participated in AREA in 2001-2002, as well as the teachers who participated during the 2002-2003 school year. Figure 9 above shows a dramatic increase in the proportion of teachers who implemented comprehensive literacy practices in their classrooms to a high degree for both groups.

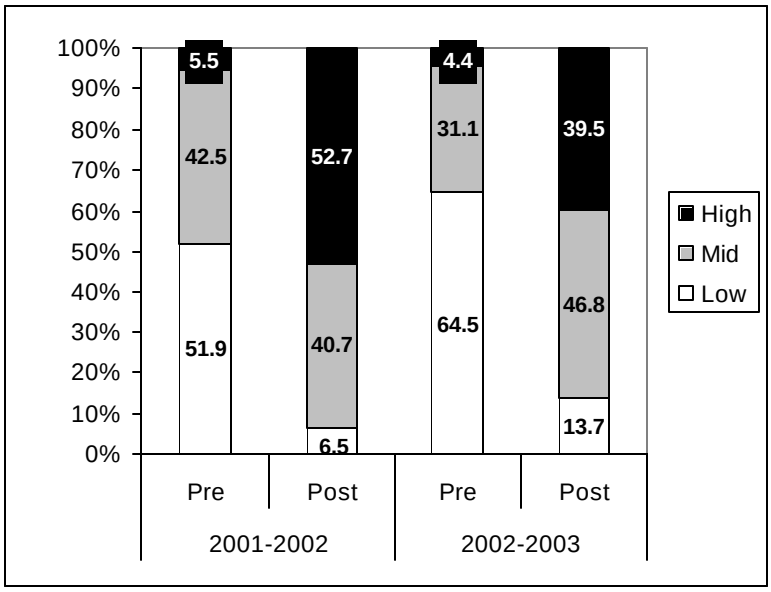
Dramatic increases in the use of comprehensive literacy techniques were observed across all strategies, as shown in the three figures which follow (Figures 10, 11, and 12). Teacher use of guided reading, interactive writing, and word work in the classroom increased significantly between pre/post classroom observations across both years.

Figure 10: Implementation of Guided Reading in the Classroom: Pre/Post by School Year



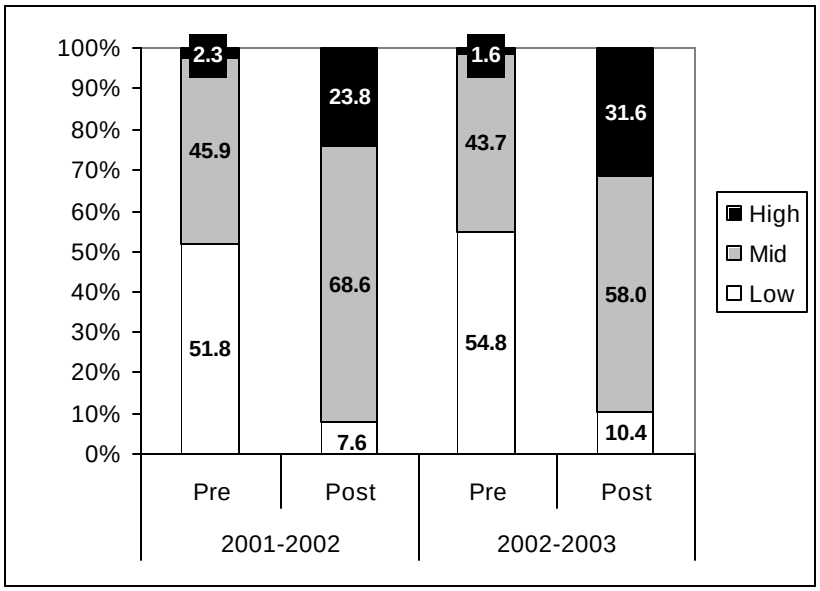
Over ½ (53%) of the 2001-2002 teachers who participated in AREA were not implementing guided reading in their classroom at the beginning of the year as compared to 7% by the time the year had ended. A similar pattern can be seen for 2002-2003 AREA participants, while 65% of teachers were implementing guided reading to a low degree at the beginning of the school year, only 12% were at a low level by the end of the school year.

Figure 11: Implementation of Interactive Writing in the Classroom: Pre/Post by School Year



Interactive Writing, in which children and teachers choose topics and compose together, is an element of comprehensive literacy which is being used much more frequently now than prior to AREA. Specifically, 52% of 2001-2002 teachers and 55% of 2002-2003 teachers were not really using interactive writing when they began the AREA training – as compared to 7% and 14% by the end of the school year.

Figure 12: Implementation of Word Work in the Classroom: Pre/Post by School Year



Word work involves teacher-led activities that use manipulation of letters to build real words. Such techniques help teach students phonics and word-solving strategies in their reading and writing. Again, use of this instructional technique is much more prevalent now, as compared to before the AREA training.

In sum, pre/post survey results show a substantial increase in teacher capacity to deliver high-quality languag

It is gratifying that changes in knowledge, skills, and classroom practices were observed among teachers ove to 307 teachers who had participated in AREA during the previous 2000-2001 school year.[15] The survey asked the extent to which teachers were still implementing comprehensive literacy practices in their classroom – even after they were no longer meeting with their AREA trainers. It also asked them the extent they had implemented prior to AREA. The following figures depict those results.

[15] One hundred sixty-five (165) teachers returned the surveys for a response rate of 54%.

Figure 13: Follow-up Survey on 2000-2001 Teachers: Current Use of Comprehensive Literacy Practices

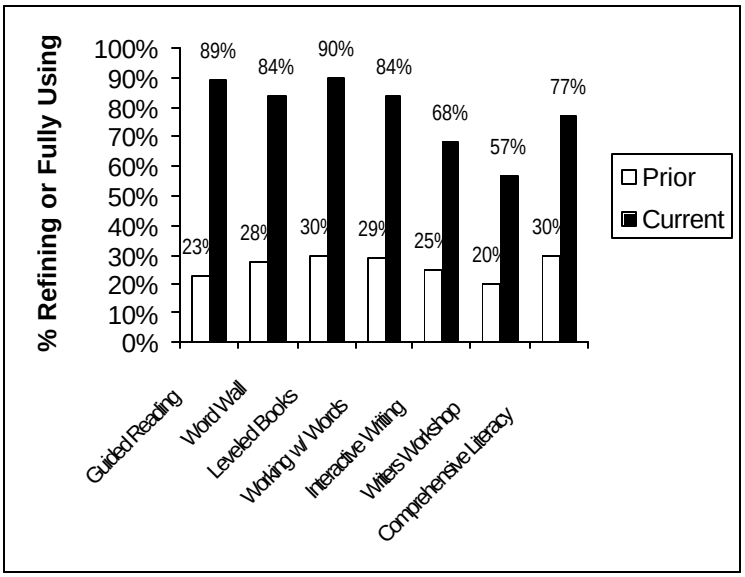
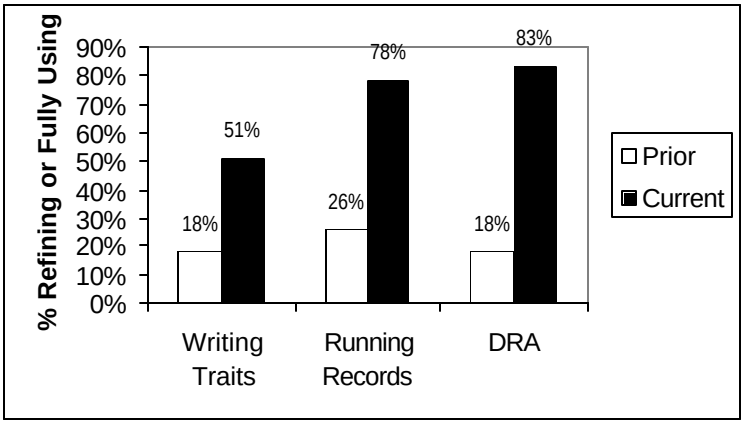


Figure 13 indicates that teachers continued to implement many of the strategies they had learned via AREA, even after they no longer were involved with the AREA project.

Figure 14: Follow-up Survey on 2000-2001 Teachers: Use of Assessment

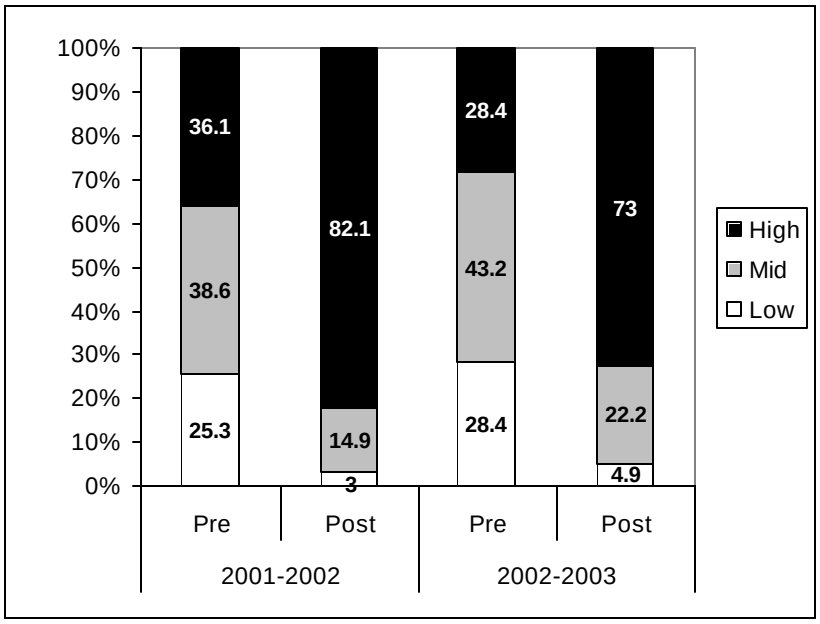


Teachers who participated in AREA were required to administer ongoing student assessments – which represented a major commitment of time and energy. Figure 14 is noteworthy in that it shows that a substantial proportion of this group of teachers continued to use these assessments with their students -- even after they were no longer required to do so as part of the AREA program.

3) How have classrooms changed as a result of AREA?

How did the observed changes in classroom practices impact students and classrooms in terms of the learning environment? Figure 15 shows that the classroom environment in which students were functioning changed dramatically over time and teacher involvement with AREA. Classrooms were rated using an observation tool.

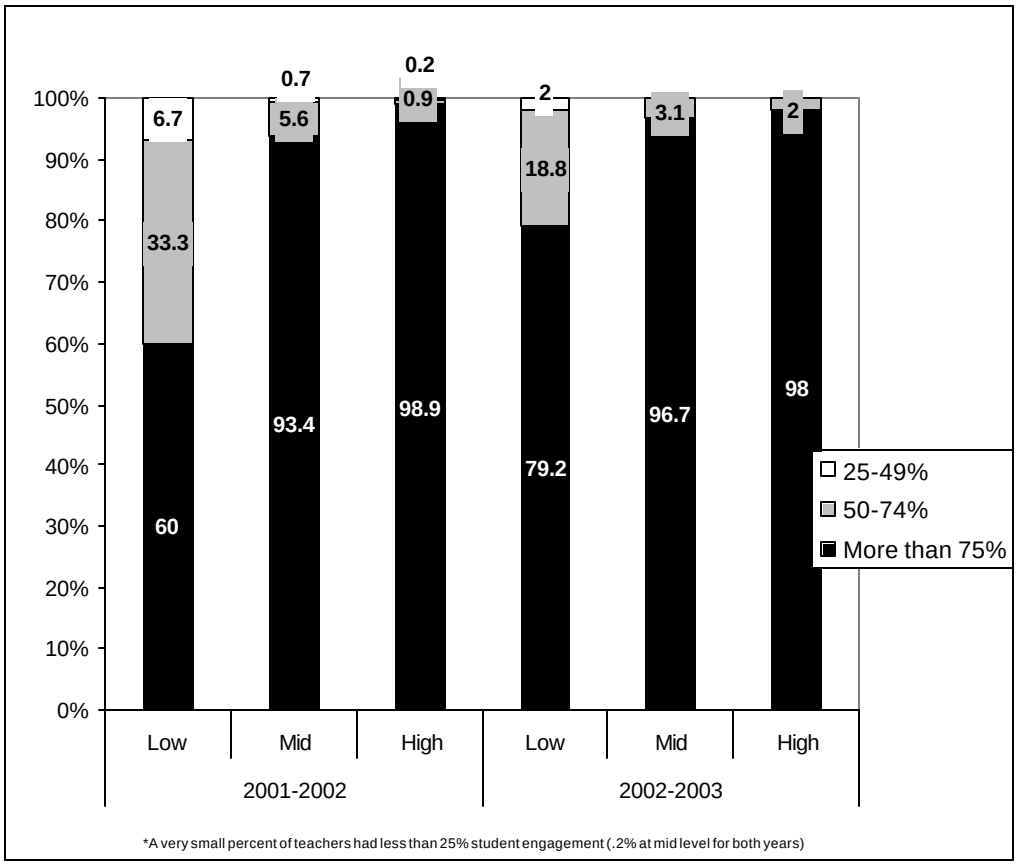
Figure 15: Overall Classroom Environment: Pre/Post by School Year



Approximately 73% of 2002-2003 teachers and 82% of 2001-2002 teachers had a high rating on classroom environment by the end of the AREA training (as compared to 28% and 36% beforehand). What does this mean? It means that students have increased access to books that are at an appropriate instructional level, that are engaging, interesting, and include a wide variety of settings and topics. It also indicates the classroom environment is one which is increasingly focused on learning, as opposed to controlling student behavior.

The changes in teacher practice were also related to higher levels of student engagement. An engaged student is one who is attentive and focused on the task at hand -- students are not looking at unassigned material, walking around aimlessly, or engaging in some other form of off-task behavior. Figure 16 shows that students in classrooms that implemented comprehensive literacy are significantly more likely to be engaged and on-task as compared to students in classrooms that did not implement comprehensive literacy. The measure is the percent of students engaged when the observation is made.

Figure 16: Student Engagement by Level of Comprehensive Literacy Implementation and School Year



Sixty (2001-2002) to 79.2% (2002-2003) of low-implementing teachers had more than 75% of their students engaged in instruction whereas for middle and high implementers, the number exceeded 93%. Some of the increase in student engagement may be attributable to the type of reading materials utilized by teachers and students. During site visits conducted by McREL evaluation staff, teachers and administrators indicated that students had more access to a variety of reading materials and because of this, children had become more enthusiastic about reading.

> *"There wasn't any non-fiction before in basal readers. The kids really like the nonfiction…it's like the Discovery Channel."* -- SD teacher

> *"Kids are reading things they can read and things they like to read. They <u>ask</u> to read now."* -- SD school administrator

As shown in Table 4, teachers, especially in the 2002-2003 group, are using a variety of reading materials, beyond basal readers.

Table 4: Percentage of Teachers Indicating the Following Materials Form Core of Reading Program: Pre/Post by School Year

What types of materials form the core of your reading program?	Program Year			
	2001-2002		2002-2003	
	Administration		Administration	
	Pre	Post	Pre	Post
Basal	*69%*	*69%*	*67%*	*61%*
Trade	*52%*	*67%*	*47%*	*49%*
Leveled	*91%*	*95%*	*78%*	*92%*
Other	*12%*	*15%*	*19%*	*13%*

The increase in use of a variety of reading materials is a significant finding as other research has shown that boys especially tend to enjoy nonfiction, which is rarely included in basal readers (Allen, 2000). In addition, research has shown that it is highly important that students read text that is at an appropriate instructional level for them. When using leveled books, teachers match student knowledge to text difficulty so that students are reading books that are at an appropriate instructional level. Table 4 shows that, while basal readers are still being used as a part of the reading program, the use of leveled books has increased.

Teachers who implemented comprehensive literacy, also tended to spend more instructional time on reading and writing, as shown in Figures 17 and 18 below.

Figure 17: Average Total Reading Time per Week: By Comprehensive Literacy Implementation Level and School Year

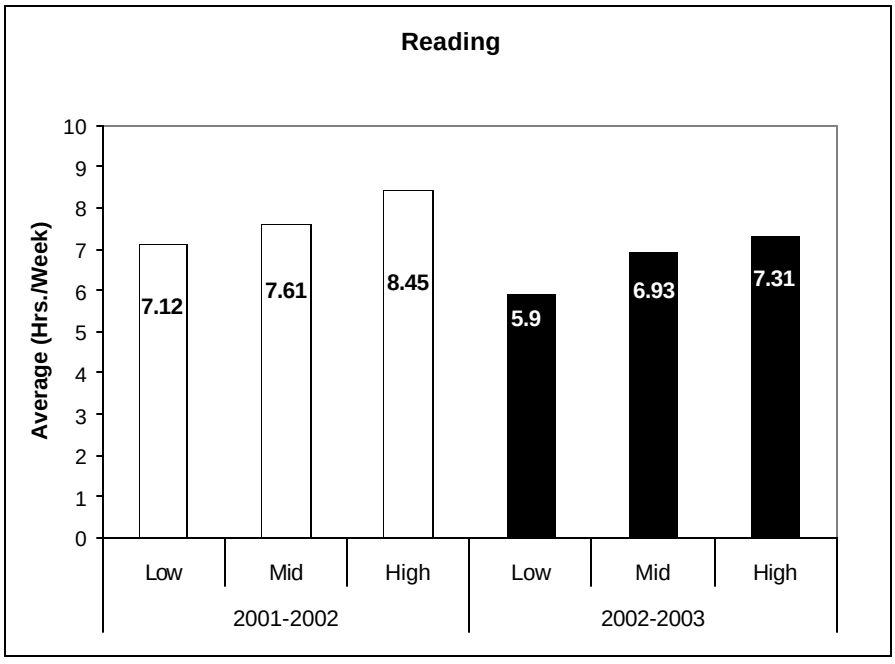
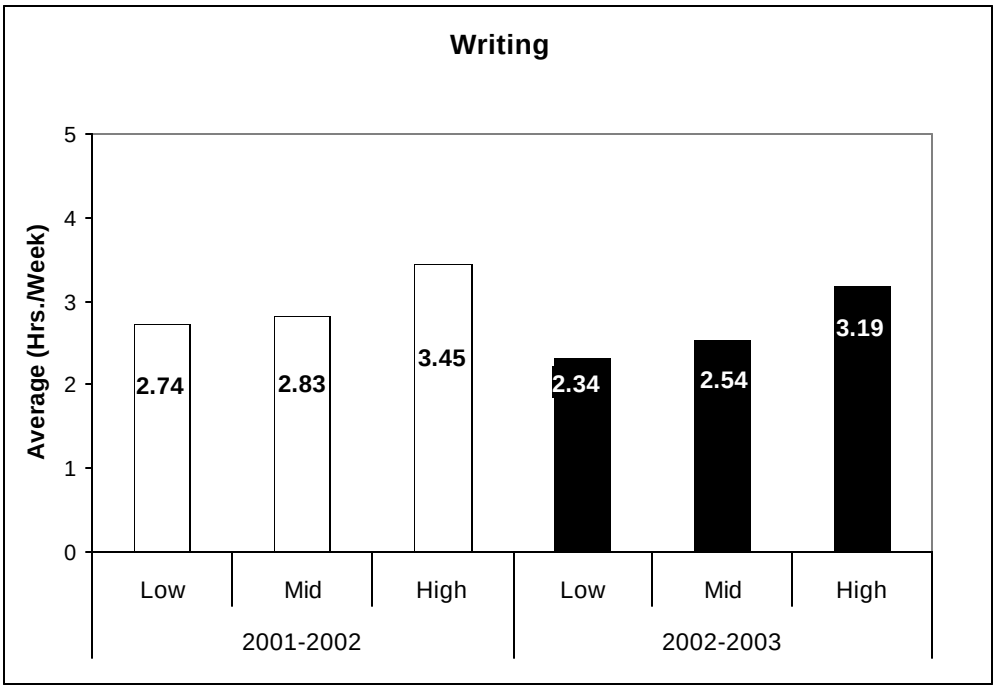


Figure 17 shows that, on average, teachers who implement comprehensive literacy to a high degree spend over an hour more per week on reading.

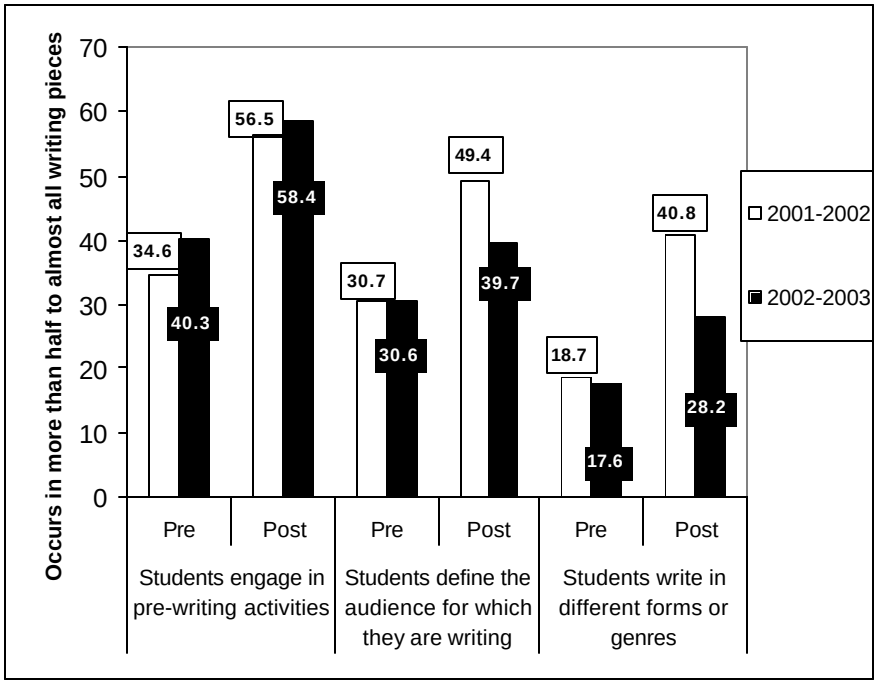
Figure 18: Average Total Writing Time per Week: By Comprehensive Literacy Implementation Level and School Year



Teachers who implement comprehe nsive literacy also spend more time on writing – although substantially less instructional time is devoted to writing at the early primary grade levels as compared to reading (e.g., at least four fewer hours per week).

Figure 19 below shows that the nature and content of writing activities have also changed somewhat for students of AREA trained teachers.

Figure 19: Percentage of Teachers Indicating Students' Writing Pieces Included the following on *More than Half* to *Almost All* of the Pieces in the Past Month: Pre/Post by School Year



Students of AREA-trained teachers were significantly more likely to engage in pre-writing activities, practice writing in different forms or genres, and define their audience as compared to the writing they did prior to their teachers' AREA involvement.

In sum, there is evidence to suggest that teacher classroom practices changed substantially in that all teachers reported implementing comprehensive literacy at a higher level at the end of their participation year than at the beginning. The classroom environment in which students found themselves improved and was focused more upon learning rather than controlling student behavior. Similarly, students in classrooms where comprehensive literacy was implemented to a high degree were more likely to be engaged and on-task. Also, there is evidence that the substance of what students received during writing instruction changed. Students were engaged in more pre-writing activities and defining the audience for which they were writing, and were also more likely to write in a number of different genres or forms as compared to before the AREA training.

4) What do participants think about AREA?

> *"I've been teaching in South Dakota for 25 years and this has been some of the best stuff I've ever had. Things I've attended before, you get a binder and maybe I use it and maybe I put it on a shelf. This, you go and come back and try it and you get so many ideas. Having someone come in and coach me – that was invaluable."* -- SD teacher

Participation in AREA was a major commitment on the part of teachers, administrators, and schools. The training was intensive and yearlong. The question then becomes, what did educators think about the AREA project? Was it useful and relevant to them? Figure 20 and Tables 5 and 6 below show teacher and administrator perceptions of the value of the AREA training.

Figure 20: Teacher Attitudes Toward AREA Training: Post by School Year

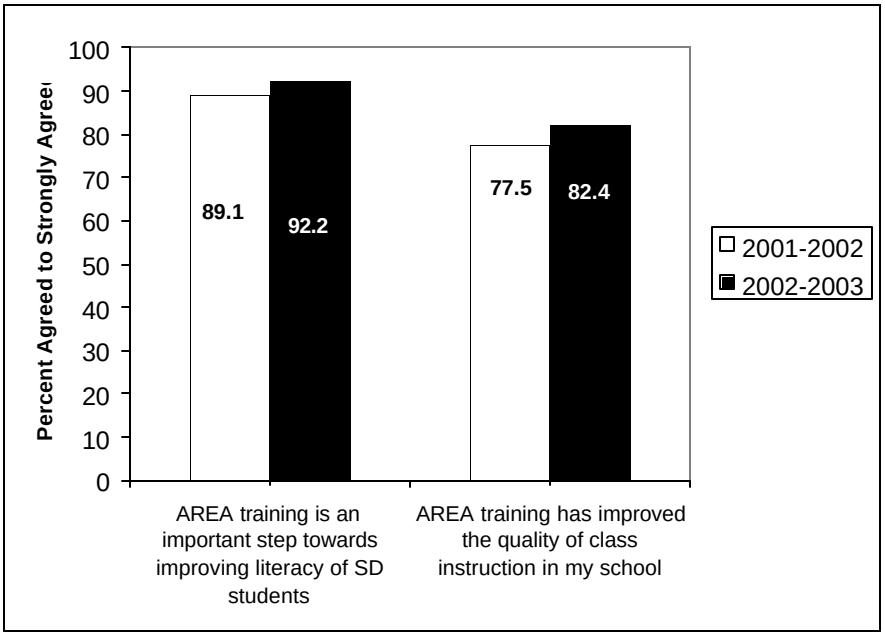


Figure 20 shows that, at the end of their year-long participation in AREA, the vast majority of teachers felt that AREA was an important step towards improving the literacy of South Dakota students and that the training had improved the quality of classroom instruction in their school.

Table 5: Administrator Attitudes Toward AREA Training: By School Year

Percent Who Agree to Strongly Agree	Post-Test Administration	
	2001-2002	**2002-2003**
I think AREA training is an important step towards improving literacy of SD students	*100%*	*89%*
AREA training has greatly improved quality of classroom instruction in my school	*85%*	*82%*
AREA training has helped my teachers think deeply about how they teach Language Arts	*95%*	*93%*
Teachers in my school discuss what they learn from AREA training with one another	*90%*	*93%*
AREA program will be helpful in meeting district, state standards	*95%*	*93%*
Implementation of early literacy techniques disseminated by AREA is a high priority for my school	*92%*	*84%*
I promote vision of AREA training in my school	*95%*	*89%*
I encourage teachers to fully participate in AREA training.	*96%*	*95%*

Table 5 shows that, after their school had finished their year of AREA participation, nearly nine out of every 10 administrators felt that: 1) AREA is an important step towards improving the literacy of South Dakota students; 2) the training has helped their teachers think deeply about how they teach Language Arts; and 3) teachers discuss what they learn from AREA with one another. Administrators promote the vision of AREA and encourage the full participation of their teachers.

Table 6: Administrator Perceptions of Changes Due to School's Participation in AREA: By School Year

Percent Who Agree to Strongly Agree	Post-Test Administration	
As a result of AREA…	**2001-2002**	**2002-2003**
…students have greater access to reading material at an appropriate instructional level	*94%*	*93%*
…teachers are better able to tailor literacy instruction to needs of individual students	*96%*	*100.0%*
…students are more engaged during literacy instruction.	*91%*	*95%*
…teachers within grade levels are using a consistent approach to literacy instruction.	*88%*	*93%*
…teachers across different grade levels are using a consistent approach to literacy instruction.	*84%*	*82%*
…I am more able to monitor reading progress & achievement at early grade levels	*78%*	*77%*
…teachers are using student assessment data more to monitor student progress	*87%*	*88%*
…students are performing better on assessments	*55%*	*70%*
…teachers are regularly using assessment results to inform their instruction	*80%*	*87%*
…students are receiving better instruction in reading	*91%*	*93%*
…students are receiving better instruction in writing	*84%*	*89%*

Table 6 shows that over 90% of administrators feel that South Dakota students are receiving better instruction in reading because of AREA, and students are more engaged during literacy instruction than previously. Moreover, a large majority (over 80%) believe teachers are using a more consistent approach to teaching language arts – both within grades and across grades – as compared to before the AREA project.

In sum, participant reactions gathered from teachers and administrators were highly positive. The majority of participants reported that AREA has been a major contributor to their professional growth and has made a positive impact on language arts instruction in their schools. In addition, the proportion of teachers and administrators who felt this way increased over the course of the school year. This suggests that participant buy-in increased as a function of time and ongoing involvement with the project.

5) How was the project implemented?

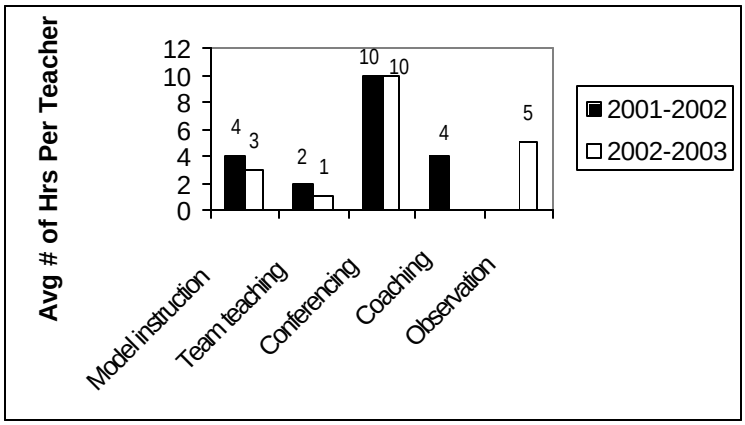
A web-based, data collection system was instituted as part of the AREA program evaluation. This system allowed for constant monitoring of program delivery on a real-time basis. Accordingly, the AREA project was delivered with a high degree of fidelity to its target audience.

A total of 2,193 teachers[16] participated in the yearlong AREA training. These teachers worked with almost 30,000 South Dakota students.[17] Additionally, at least 458 school administrators participated in the AREA training as well.[18] AREA trainers made an average of nine visits to each teacher's classroom and teachers attended an average of 11 monthly training sessions.

During their classroom visits to teachers, trainers did a combination of observations, modeling, coaching, team teaching, and conferencing. Figure 21 below shows the average number of hours spent with each teacher by type of activity. Overall, trainers provided an average of 20 hours of in-classroom work with each teacher.

[16] 307 teachers were trained in 2000-2001, 910 in 2001-2002, and 976 in 2002-2003.
[17] It is estimated that the 307 teachers in 2000-2001 served approximately 4,000 students – this is not precise because the formal evaluation and web-based data collection system was not fully put into place until the second year. In the second year (2001-2002), 910 teachers worked with 14,114 students and in 2002-2003, the 967 teachers being trained by AREA worked with 12,646 students.
[18] In 2001-2002, 175 administrators participated in the AREA training; in 2002-2003, 283 administrators did so.

Figure 21: Classroom Visits to Teachers
Types of Activities



All of the AREA activities, modeling, coaching, team teaching, conferencing and attending the monthly AREA training sessions were significantly related to changes in teacher practices. This suggests that the whole AREA package of activities worked in concert to bring about the desired changes.

In summation, the AREA project did reach its target audience and was implemented with a high degree of fidelity. There was very little variability in terms of service implementation.

Summary

The evaluation of the AREA project included data collected on program implementation, monitoring of changes in teacher and administrator knowledge, skills, and attitudes; monitoring of changes in teacher classroom practices; and the collection of student performance data. Longitudinal pre- and post-surveys, classroom observations, site visits, and student assessments were collected over time. The information which has been compiled over multiple years and from multiple sources, suggest that the AREA project did indeed have several important effects. Noteworthy findings include:

- Teachers who participated in the AREA training feel significantly more prepared to: 1) tailor their instruction to the diverse needs of learners; and 2) help *all* students read and write well.

- The AREA training resulted in significant changes in teacher classroom practices in that teachers are implementing comprehensive literacy techniques to a much higher degree than they did prior to the AREA training. Moreover, there is data (e.g., follow-up conducted on participants from the first year) to suggest that teachers continue to implement what they learned from AREA, even after they are no longer involved with the project.

- There has been an increase in the use of high-quality assessment practices in the early primary grades across South Dakota.

- South Dakota students have greater access to a variety of reading materials that are at appropriate instructional levels.

- Multiple sources of student assessment data suggest a positive trend in that students of AREA-trained teachers perform better than students of teachers who have not yet been trained by AREA.

- Participant reactions to the AREA training are very positive. AREA participants report that the training they received: 1) was highly useful and relevant; 2) made them think and reflect about their teaching more; 3) contributed greatly to their conceptual understanding of the reading and writing process; and 4) resulted in dramatic changes in their classroom practices – as compared to their practices before participating in AREA.

AREA was a highly unique project consisting of intensive, yearlong professional development. Trainers were on-site in teachers' classrooms and worked directly with them. The scale, intensity, and method of delivery utilized by AREA has rarely been undertaken on a such large-scale basis. Findings suggest that this type of ongoing, yearlong professional development which included a combination of ongoing practice and mentoring of teachers, along with monthly training sessions, was highly effective. Both classroom visits by trainers and session attendance by teachers contributed significantly to changes in teacher classroom practices.

Several analyses of student performance data all point positively towards the impact of AREA on student performance – especially in reading. The impact on student writing appears to be less pronounced, however. There are several potential explanations for this. One is that the data shows that teachers at the first to third grade levels spend much more time working on reading than writing. Accordingly, one would expect to see less dramatic changes in student writing. Second, several sources of data suggest that, while teacher practices changed dramatically as a result of AREA, they did not change as much in writing as in other areas. In particular, the level of implementation of Writers Workshop by the end of the year of AREA training was not as high as some of the other elements of comprehensive literacy.

Convergent findings all point towards an increase in student engagement and enjoyment of reading. This will likely continue to have long-lasting and resounding impacts on the lives of the children.

In sum, AREA was a highly intensive professional development opportunity which required the commitment of participating teachers for a full year. During site visits and interviews that project evaluators conducted with teachers, the extensive time and energy commitment that AREA required from participating teachers was an initial source of concern. It is therefore highly noteworthy that, by the end of their year of participation in AREA, so many of the teachers felt the experience to have been highly valuable and beneficial. More importantly, beyond teacher appreciation, the data consistently show that teacher practices and classrooms have changed in a positive manner because of AREA.

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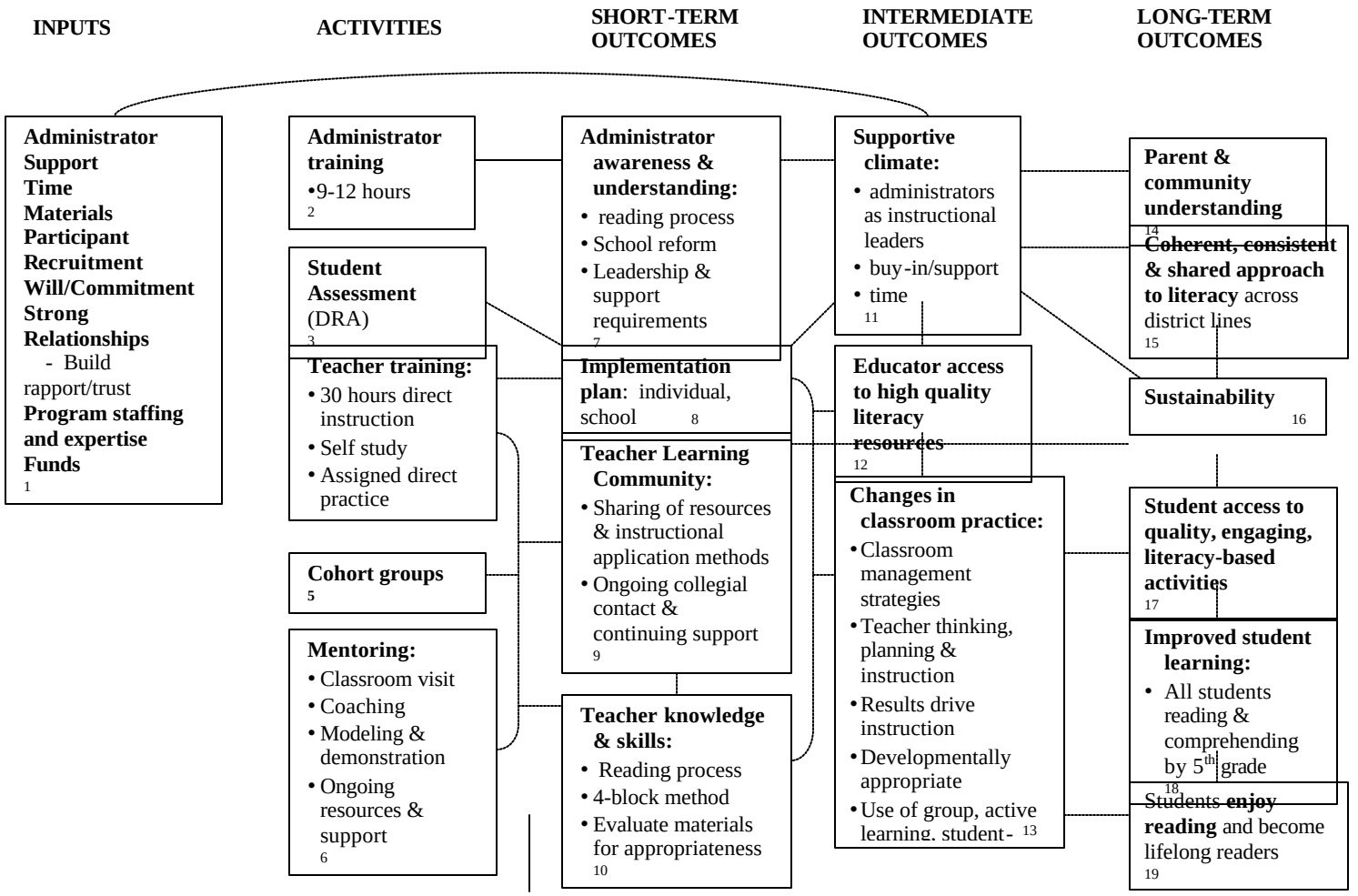
APPENDIX A:

Program Logic Model



Logic model for South Dakota Advanced Reading Enhancement Program
Revised January 19, 2001

Some Assumptions (20) :

- Participation valued by teachers & administrators
- Educators motivated and perceive the usefulness
- Opportunities & time available for integration into planning and instruction
- Mentors knowledgeable and utilize effective delivery strategies

Contextual Influences (21) :

- Staff turnover & new hires
- school context
- teacher preconceived schools of thought/preservice
- other programs underway
- student population